

NOTE ON THE BIBLIOGRAPHY OF LORD HOWE
ISLAND.

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In a work on Lord Howe Island,* recently published by the Trustees of the Australian Museum, I called attention to the general Bibliography of the island, and regretted my inability to refer to a report by a Dr. Foulis, who was said to have passed three years there as a resident. I further stated that Mr. Surveyor H. F. White's report, who surveyed Lord Howe Island in 1835, "did not seem to have been published." I am now indebted to the kindness of Prof. W. J. Stephens, M.A., in calling my attention to the "Votes and Proceedings of the Legislative Council of New South Wales"† for 1853, in which Dr. Foulis's account appears, and also a short one by Mr. White. They form a part of the papers relating to a "Proposed New Penal Settlement," the formation of which was contemplated by the authorities at that time. These old papers, however, reveal much more than the above even, for accompanying them are reports by Captain H. M. Denham, R.N., of H.M.S. "Herald," and that accomplished naturalist, Dr. J. Denis Macdonald, who acted as surgeon to Captain Denham's South Pacific Exploring Expedition. It may not be without interest to briefly recapitulate some of the more important facts detailed by these observers.

* Lord Howe Island: its Zoology, Geology, and Physical Characters. *Mem. Australian Mus.*, 1889, No. 2. (8vo. Sydney, 1889.)

† Votes and Proceedings of the Legislative Council, 1853, 268, A. (2 vols. fcap. Sydney, 1853.)

The report of Mr. Surveyor H. J. White,* entitled "Report on Lord Howe Island," is dated 1835, and is a very brief one. It gives the area of the island at 3,230 acres, of which 1,000 are "sufficiently level, although too sandy for cultivation," as against 3,220 acres and 2,000 acres, respectively, given by the Government Botanist, Mr. Charles Moore.† He further mentions the small lagoon in the centre of the island shown on his chart, but of which we could find no trace during our visit. The population at the time of Mr. White's survey consisted of four men, three New Zealand women, and two children.

The report of Dr. John Foulis, dated September 1st, 1851, and sixteen years after White's, is a "Statement of Circumstances in reference to Lord Howe's Island, situated off the coast of New South Wales, between the Heads of Port Jackson and Norfolk Island." Dr. Foulis's residence extended to three years. He describes the island as thirty-five miles in circumference, the coral reef two miles from the shore and ten miles in length! As a matter of fact, the reef is but one mile from the western coast, and is between three and four miles long, extending across the bay formed between Phillip Point and the western foot of Mount Ledgebird. Amongst other zoological notes five kinds of fish are recorded, and it is stated that whales are "in the habit of breeding near the reef at certain seasons;" a large blue pigeon and parrots are also mentioned, thus supporting the statement of the late Mr. E. S. Hill as to the presence of these birds on Lord Howe Island, and confirmed by the evidence our party gathered on the same subject. In connection with the geology, Dr. Foulis mentions one or two interesting facts, such as the "bones of turtle and sea shells" occurring in the "soft sandstone hills and cliffs" forming the lower ground. He also noticed extensive and deep beds of clay scattered over the island, one of these, in a well-sinking, being as much as fourteen feet thick. The turtle

* Not H. F. White, as generally stated,

† Lord Howe Island, &c. By Edward S. Hill, 1870 (8vo. Sydney, 1870) p. 14.

bones are evidently those of the extinct genus *Meiolania*, and the extent of the clay beds is quite borne out by the investigations made by the writer on the spot.* On the chart accompanying this report Mutton-bird Island is called Inaccessible Island, a very appropriate name, and which, as a matter of precedence, would appear to be its proper designation. Sixteen people were resident on Lord Howe Island at this time.

Dr. Foulis's report is followed by a brief one by Captain H. M. Denham, dated 1853—"Remarks on Lord Howe Island." He places the "Madeira of the Pacific" in $31^{\circ} 31' S. Lat.$, and $159^{\circ} 5'' E. Long.$, which only differs from the careful observations of Mr. W. J. Conder, the Superintendent of the Trigonometrical Survey in 1882, by $2' S. Lat.$, the latter observer giving its position as $31^{\circ} 33' S. Lat.$ The sixteen inhabitants mentioned by Dr. Foulis formed the families of Andrews, Mosely, and Wright, "who dropped into sole occupancy in 1843, from having been in the service of a 'Captain Poole.'"

We now come to the interesting paper by Dr. Macdonald—"Remarks on the Natural History and Capabilities of Lord Howe Island."

I much regret that this did not come under my observation at the time I wrote the account of our operations at the island, as it would have given me great pleasure to have made copious extracts from it. Dr. Macdonald describes the geology somewhat fully, and his observations are, I am glad to say, quite in keeping with those made by myself. He noticed the two chief rock masses of the island, the volcanic series in horizontal layers, intersected by dykes; and the coarse later sandstone. These he traced out with commendable accuracy, noticed the occurrence of grey pumice on all low lands, and also the unconformity existing between the two divisions of the Coral sand-rock, described by myself.† In mentioning the lagoon within the coral-reef, Dr. Macdonald states that in September during low tides it became dry, and that it was

* Mem. Australian Mus. 1889, No. 2, pp. 114 and 120.

† Mem. Australian Mus., 1889, No. 2, p. 118.

possible to walk across to Rabbit Island. He also refers to the fact that the inland or fresh-water lagoon had disappeared, a fact also in accord with our observations. In his ornithological notes he speaks of two kinds of Mutton Bird, one brown or black, the other white and a winter visitant. The former would be either *Puffinus brevicaudus*, Brandt, or *P. sphenurus*, Gould, but the identity of the latter is puzzling. The writer also records a visit of swallows, and a flight of wild duck during his visit to Lord Howe Island. One very interesting fact recorded by Dr. Macdonald is the occurrence of the Cape Pigeon, *Daption capensis*,* around Ball's Pyramid, because we observed this species about Lat. 32° S., when proceeding to the island in the s.s. "Taupo."

Under the head of reptiles, Dr. Macdonald recorded two lizards, and a "small dark coloured land snake," but non-venomous. Now, if there is no mistake here, this statement is of importance, because from all accounts, Ophidians are supposed to be non-existent there, and our researches certainly did not reveal any trace of this order.

The remaining classes of the animal kingdom are touched upon by the author, who mentions the occurrence of the Pearly Nautilus (*Nautilus pompilius*, Linn.), and a small *Pentacrinus*, neither of which came under our observation. This very interesting report concludes with a short account of the botany and general capabilities of Lord Howe Island.

If I am not very much mistaken, a French translation of the foregoing has appeared, for my colleague, Mr. Whitelegge, on looking up other matters in the Royal Society's Catalogue of Scientific Papers, found under Dr. Macdonald's name the following title: "Note sur la Topographie et l'Histoire naturelle de l'île de Lord Howe," published in a French naval medical journal,† which, I regret to say, is not procurable here. Notwithstanding the discrepancy in the date, this and the official report are probably one and the same.

* Termed *Procellaria capensis*, by Macdonald.

† Archives de Méd. Navale, 1872, xvii. p. 241.

When speculating on the geological history of Lord Howe Island,* I referred to the 1000 feet submerged bank which extends north-westerly from New Zealand to Lord Howe, and quoted Mr. A. R. Wallace's view on the subject. I should also have added that those interested in the possible oscillations of old land surfaces in the South Pacific from Australia eastward, and since Jurassic times, cannot do better than consult the highly interesting and instructive addresses of Prof. F. W. Hutton "On the Origin of the Fauna and Flora of New Zealand."† In these papers a very exhaustive account is given of the possible extension of land around New Zealand in former times towards New Guinea by New Caledonia and Fiji, reaching even to South America; besides a lucid exposition on the origin of the present fauna and flora of New Zealand.

In conclusion, I may remark that the deposit at Lord Howe Island I have called the "Coral sand-rock,"‡ appears to be very much akin to the "beach sand-rock" described by Dr. H. B. Guppy,§ as found at the margins of coral islets around the Solomon Group, and its formation seems to have given rise to much speculation in his mind, as it did in mine, when at Lord Howe Island.

Addendum, 20th August, 1889.

The original chart of Lord Howe Island, believed by us to be unpublished, and of which we were supplied with a tracing by the Deputy Surveyor-General, I find was published in Governor Phillip's "Voyage to Botany Bay" (4to, London, 1790, p. 183).

* *Loc. cit.* p. 122.

† No. I. Presidential Address to the Philosophical Institute of Canterbury, 1st November, 1883; No. II. Annual Address to the same, 6th November, 1834. (See *N. Z. Journ. Science*, ii. p. 1).

‡ *Loc. cit.* p. 115.

§ The Solomon Islands: Their Geology, &c., 1887, p. 84.